



MPO/MTP® Trunk Cables Datasheet



Standards Compliance

- TIA/EIA 568.3-D
- IEC 61300-3-35
- RoHS and REACH

Features

- Low loss Connector
- Polish Type: PC, APC
- G657A1, OM3, OM4, OM5 available
- Supports 400G and 800G data rates
- Factory Pre-terminated 100% Tested

Technical Specification

ITEM	Description
Fiber Count	8~144 Fibers
Fiber Mode	Single Mode: G657A1 Multimode: OM3/OM4/OM5
Connector Type	MPO Female, Male/MTP Female, Male
Connector Ferrule	Plastic
Polish Type	SM: PC/APC MM: PC
Cable Jacket Ratings	PVC/LSZH/OFNP
Connectors Color	SM: Green(Standard loss); Yellow(Low loss) MM: Aqua(OM3); Violet(OM4); Lime Green(OM5)
Cable Jackets Color	SM: Yellow MM: Aqua(OM3); Violet(OM4); Lime Green(OM5)
Cable Diameter ^①	3.0mm
Tensile Strength	40N
Connector Durability	500 Mating Cycles
Cable Type	Bunch/Ribbon
Breakout Length	0.3m/0.5m
Polarity	Type A, Type B, Type C

Note: SM(Single Mode), MM(Multimode).

①: Cable diameter of standard single MPO/MTP cable is 3.0mm, and as for cables with different bundles, the trunk diameter is different.

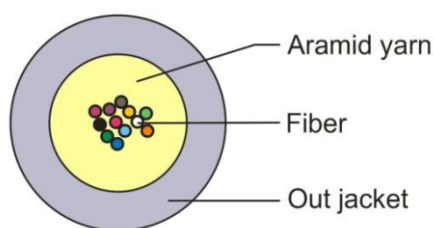
Bundle Count	MPO/MTP-12	MPO/MTP-24	Trunk Diameter
2 Bundles	24 Fibers	48 Fibers	9±0.5mm
3 Bundles	36 Fibers	72 Fibers	9±0.5mm
4 Bundles	48 Fibers	96 Fibers	9±0.5mm
6 Bundles	72 Fibers	144 Fibers	11.2±0.5mm
8 Bundles	96 Fibers		13.5±0.5mm
12 Bundles	144 Fibers		17.5±0.5mm

Note: MPO/MTP-12 cables, 2 bundles mean 24 Fibers (2x 12F);
MPO/MTP-24 cables, 2 bundles mean 48 Fibers (2x 24F).

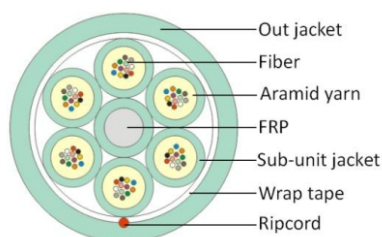
ITEM	Description
Insertion Loss	Standard loss: (SM:APC $\leq$ 0.7dB; MM:PC $\leq$ 0.7dB) Low loss: (SM:APC $\leq$ 0.35dB; MM:PC $\leq$ 0.35dB)
Return Loss	Standard loss: (SM:APC $\geq$ 55dB; SM:PC $\geq$ 40dB, MM:PC $\geq$ 20dB) Low loss: (SM:APC $\geq$ 60dB; SM:PC $\geq$ 50dB, MM:PC $\geq$ 25dB)
Wavelength	SM: 1310/1550nm MM: 850/1300nm
Operating Temperature	-20~70°C
Storage Temperature	-40~70°C

Note: MPO Connectors are available in low loss or standard loss, MTP Connectors are low loss

Cable Technical Specification



8~24 Fibers
Micro Multi-Core Soft Cable



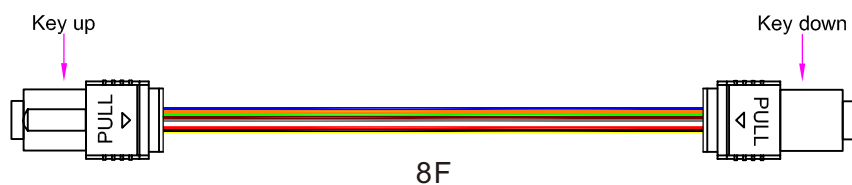
24~144 Fibers
Sub-Unit Micro Cable

ITEM	Micro Cable	Sub-Unit Cable
Fiber Minimum Bend Radius	SM:10mm MM:7.5mm	SM:10mm MM:7.5mm
Cable Minimum Bend Radius	Dynamic:20D Static:10D	Dynamic:20D Static:10D
Max.Crush Resistance	Short-term:500N/100mm Long-term:100N/100mm	Short-term:1000N/100mm Long-term:300N/100mm

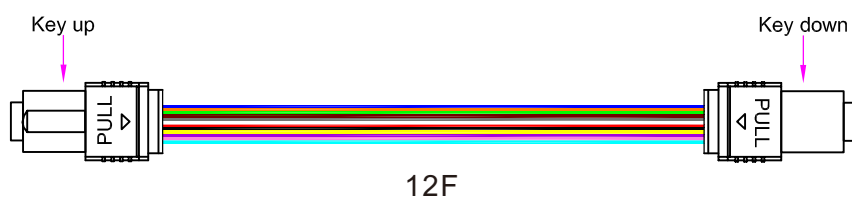
Cables	Nominal Weight	Max.Tensile Strength	
		Short-Term	Long-Term
8~24 Fibers(Micro Soft Cable)	7.5kg/km	160N	80N
24 Fibers	76kg/km	500N	180N
36 Fibers	78kg/km	500N	180N
48 Fibers	79kg/km	600N	200N
72 Fibers	126kg/km	1000N	300N
96 Fibers	178kg/km	1000N	300N
144 Fibers	285kg/km	1000N	300N

ITEM	Description
Attenuation(dB/km)	SM: ≤ 0.5 at 1310nm, ≤ 0.4 at 1550nm OM3/OM4/OM5: ≤ 3.5 at 850nm, ≤ 1.5 at 1300nm
Bandwidth(MHz*km)	OM2: ≥ 700 at 850nm, ≥ 500 at 1300nm OM3: ≥ 1500 at 850nm, ≥ 500 at 1300nm OM4: ≥ 3500 at 850nm, ≥ 500 at 1300nm OM5: ≥ 3500 at 850nm, ≥ 500 at 1300nm

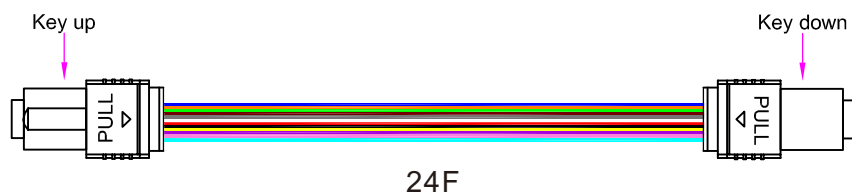
Polarity: Type A



A		B
Pin No.	Fiber colour	Pin No.
1	BLUE	1
2	ORANGE	2
3	GREEN	3
4	BROWN	4
5	Not used	5
6	Not used	6
7	Not used	7
8	Not used	8
9	GREY	9
10	WHITE	10
11	RED	11
12	BLACK	12



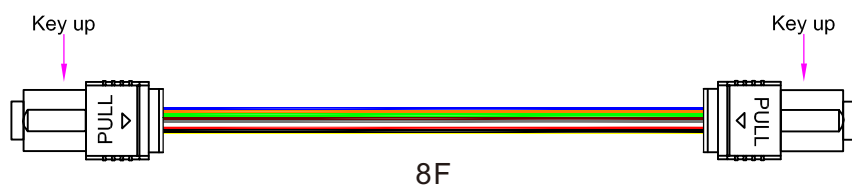
A		B
Pin No.	Fiber colour	Pin No.
1	BLUE	1
2	ORANGE	2
3	GREEN	3
4	BROWN	4
5	GREY	5
6	WHITE	6
7	RED	7
8	BLACK	8
9	YELLOW	9
10	PURPLE	10
11	PINK	11
12	AQUA	12



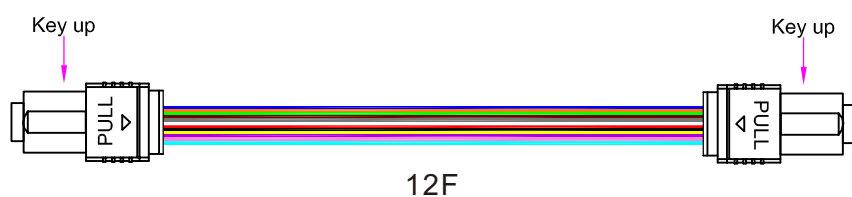
A		B
Pin No.	Fiber colour	Pin No.
1	BLUE	13
2	ORANGE	14
3	GREEN	15
4	BROWN	16
5	GREY	17
6	WHITE	18
7	RED	19
8	BLACK	20
9	YELLOW	21
10	PURPLE	22
11	PINK	23
12	AQUA	24

A		B
Pin No.	Fiber colour	Pin No.
13	BLUE—	1
14	ORANGE—	2
15	GREEN—	3
16	BROWN—	4
17	GREY—	5
18	WHITE—	6
19	RED—	7
20	BLACK—	8
21	YELLOW—	9
22	PURPLE—	10
23	PINK—	11
24	AQUA—	12

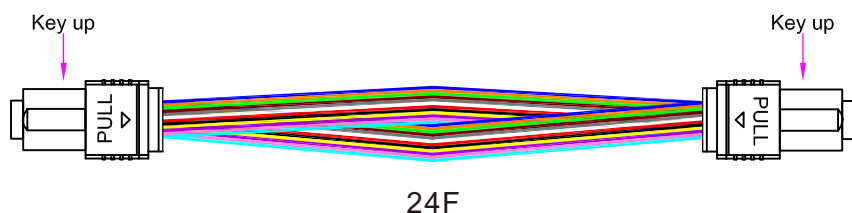
Polarity: Type B



A		B
Pin No.	Fiber colour	Pin No.
1	BLUE	12
2	ORANGE	11
3	GREEN	10
4	BROWN	9
5	Not used	8
6	Not used	7
7	Not used	6
8	Not used	5
9	GREY	4
10	WHITE	3
11	RED	2
12	BLACK	1



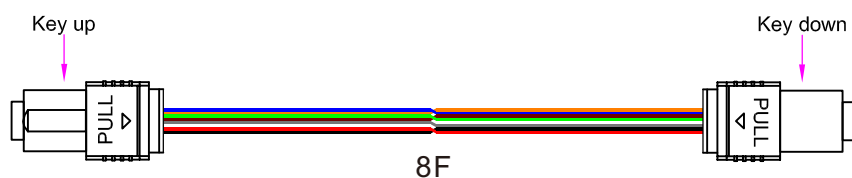
A		B
Pin No.	Fiber colour	Pin No.
1	BLUE	12
2	ORANGE	11
3	GREEN	10
4	BROWN	9
5	GREY	8
6	WHITE	7
7	RED	6
8	BLACK	5
9	YELLOW	4
10	PURPLE	3
11	PINK	2
12	AQUA	1



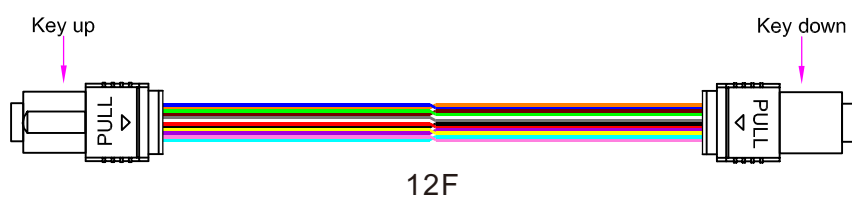
A		B
Pin No.	Fiber colour	Pin No.
1	BLUE	24
2	ORANGE	23
3	GREEN	22
4	BROWN	21
5	GREY	20
6	WHITE	19
7	RED	18
8	BLACK	17
9	YELLOW	16
10	PURPLE	15
11	PINK	14
12	AQUA	13

A		B
Pin No.	Fiber colour	Pin No.
13	BLUE-	12
14	ORANGE-	11
15	GREEN-	10
16	BROWN-	9
17	GREY-	8
18	WHITE-	7
19	RED-	6
20	BLACK-	5
21	YELLOW-	4
22	PURPLE-	3
23	PINK-	2
24	AQUA-	1

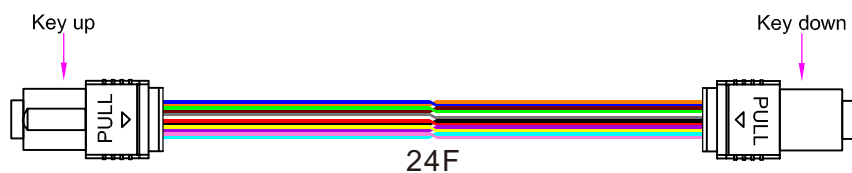
Polarity: Type C



A		B
Pin No.	Fiber colour	Pin No.
1	BLUE	2
2	ORANGE	1
3	GREEN	4
4	BROWN	3
5	Not used	5
6	Not used	6
7	Not used	7
8	Not used	8
9	GREY	10
10	WHITE	9
11	RED	12
12	BLACK	11



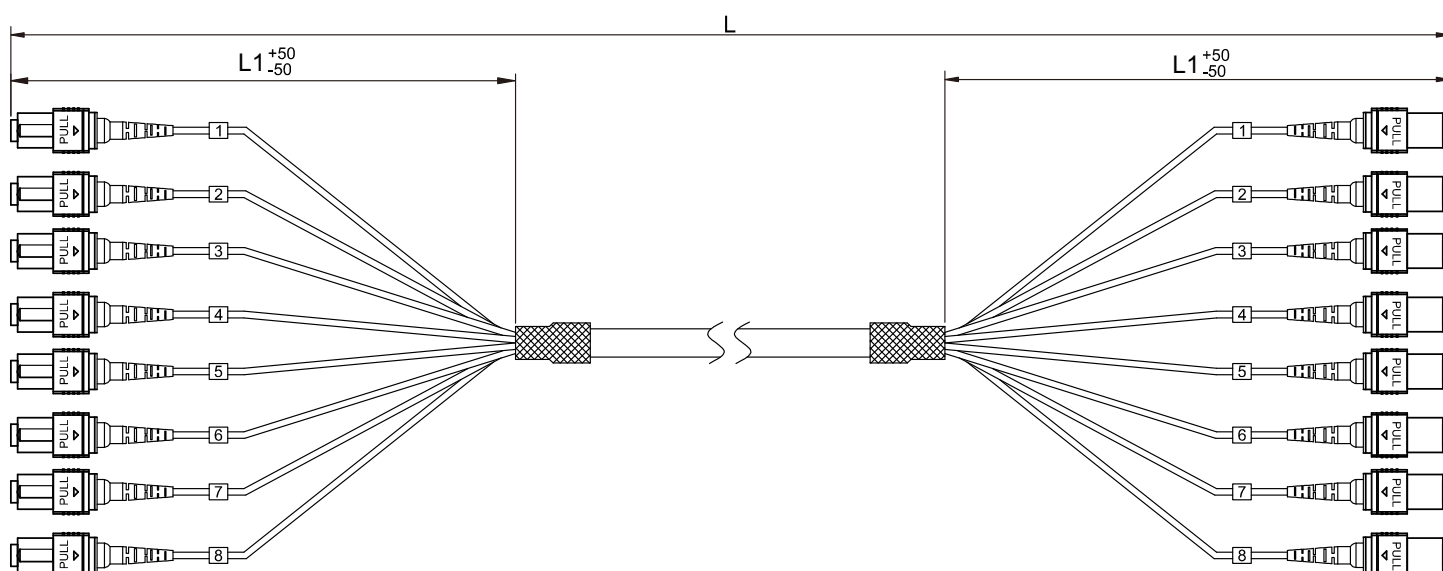
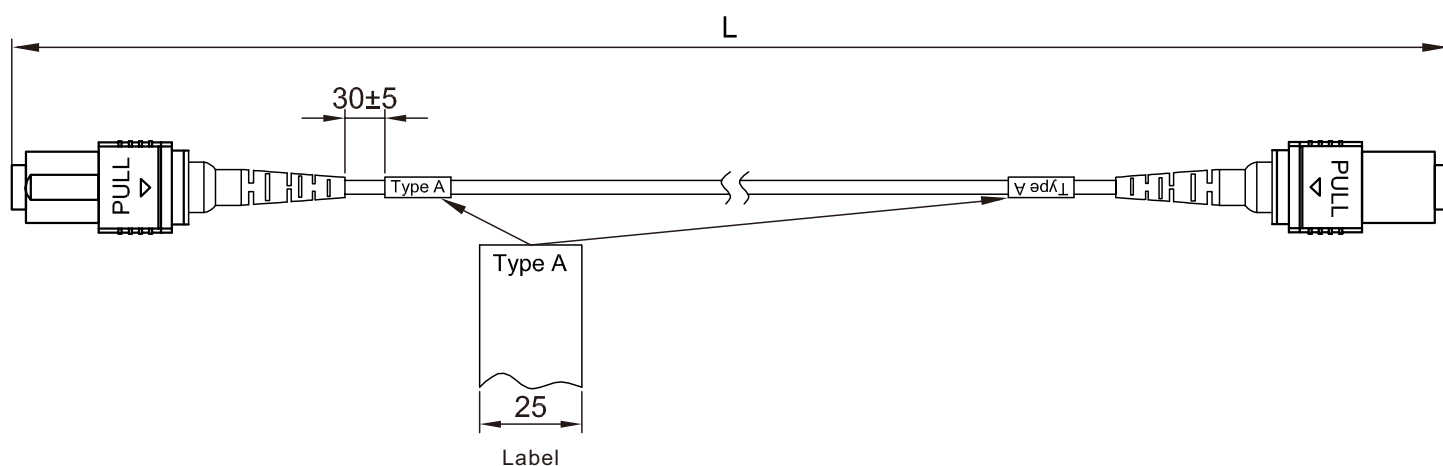
A		B
Pin No.	Fiber colour	Pin No.
1	BLUE	2
2	ORANGE	1
3	GREEN	4
4	BROWN	3
5	GREY	6
6	WHITE	5
7	RED	8
8	BLACK	7
9	YELLOW	10
10	PURPLE	9
11	PINK	12
12	AQUA	11



A		B
Pin No.	Fiber colour	Pin No.
1	BLUE	14
2	ORANGE	13
3	GREEN	16
4	BROWN	15
5	GREY	18
6	WHITE	17
7	RED	20
8	BLACK	19
9	YELLOW	22
10	PURPLE	21
11	PINK	24
12	AQUA	23

A		B
Pin No.	Fiber colour	Pin No.
13	BLUE—	2
14	ORANGE—	1
15	GREEN—	4
16	BROWN—	3
17	GREY—	6
18	WHITE—	5
19	RED—	8
20	BLACK—	7
21	YELLOW—	10
22	PURPLE—	9
23	PINK—	12
24	AQUA—	11

Technical Drawing



Cable Length	Tolerances
$L \leq 1\text{m}$	$+150\text{mm}/-0$
$1\text{m} < L \leq 10\text{m}$	$+150\text{mm}/-50$
$10\text{m} < L \leq 30\text{m}$	$+150\text{mm}/-50$
$L > 30\text{m}$	$+1\%/-0$

Ordering Information

MPO/F/PC - MPO/F/PC - OM3 - 12B - S - 1.5M - LSZH - Aqua - A								
1	2	3	4	5	6	7	8	9

- 1-Connector A:** MPO/F/PC:MPO Female PC; MTP/M/APC:MTP Male APC;
2-Connector B: MPO/F/PC:MPO Female PC; MTP/M/APC:MTP Male APC;
3-Fiber Type: OM3; OM4; OM5; G657A1;
4-Fiber Count: 12B:12F Bundled Cable;12R: 12F Ribbon Cable;
5-Breakout Type: S:No Breakout; B3.0: 3.0mm Breakout Cable;
6-Cable Length: 1.5M;
7-Cable Jacket Ratings: LSZH; PVC; OFNP;
8-Cable Color: Yellow(G657A1);Aqua(OM3);Violet(OM4);Lime Green(OM5);
9-Polarity: A: Type A; B: Type B; C: Type C



SHKE Communication Tech Co.,Ltd.

Add: 301, Factory Building 1, Nangang 2 Industrial Park,
 No.1026 Songbai Road, Sunshine Community,
 Xili Street, Nanshan District, Shenzhen, China
 P.C.:518108

Tel: +86 755 8253 5150 8253 5380

Fax: +86 755 8253 5230

E-mail: market@shke.com.cn

Web: www.shke.com.cn

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